Release notes for ENDF/B Development n-041_Nb_094 evaluation

April 26, 2017

- `checkr` Warnings:

  1. A previous error halted parsing of the current section
     MAT=4128, MF= 1, MT=451 (1): Parsing stopped

     ```
     ERROR(S) FOUND IN MAT=4128, MF= 1, MT=451
         SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER      236 TO      327
     ```

- `checkr` Errors:

  1. A variable is outside the allowed ENDF range
     MAT=4128, MF= 1, MT=451 (0): Variable range

     ```
     ERROR(S) FOUND IN MAT=4128, MF= 1, MT=451
         MOD =     1 OUT OF RANGE     0 -     0           RECORD NUMBER     236
     ```

  2. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=4128, MF= 2, MT=151 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=4128, MF= 2, MT=151
         SECTION  2/151 NOT IN DIRECTORY                RECORD NUMBER     329
     ```

  3. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=4128, MF= 3, MT= 1 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=4128, MF= 3, MT=  1
         SECTION  3/  1 NOT IN DIRECTORY                RECORD NUMBER     692
     ```

  4. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=4128, MF= 3, MT= 2 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=4128, MF= 3, MT=  2
         SECTION  3/  2 NOT IN DIRECTORY                RECORD NUMBER     727
     ```

  5. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=4128, MF= 3, MT= 4 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=4128, MF= 3, MT=  4
         SECTION  3/  4 NOT IN DIRECTORY                RECORD NUMBER     758
     ```

  6. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=4128, MF= 3, MT= 16 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 16
         SECTION  3/ 16 NOT IN DIRECTORY                RECORD NUMBER     782
     ```

  7. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=4128, MF= 3, MT= 17 (0): Directory (b)

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```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 17
           SECTION  3/ 17 NOT IN DIRECTORY                RECORD NUMBER      793
```

8. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=4128, MF= 3, MT= 22 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 22
           SECTION  3/ 22 NOT IN DIRECTORY                RECORD NUMBER      799
```

9. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=4128, MF= 3, MT= 28 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 28
           SECTION  3/ 28 NOT IN DIRECTORY                RECORD NUMBER      813
```

10. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 32 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 32
           SECTION  3/ 32 NOT IN DIRECTORY                RECORD NUMBER      825
```

11. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 33 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 33
           SECTION  3/ 33 NOT IN DIRECTORY                RECORD NUMBER      834
```

12. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 51 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 51
           SECTION  3/ 51 NOT IN DIRECTORY                RECORD NUMBER      842
```

13. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 52 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 52
           SECTION  3/ 52 NOT IN DIRECTORY                RECORD NUMBER      866
```

14. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 53 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 53
           SECTION  3/ 53 NOT IN DIRECTORY                RECORD NUMBER      890
```

15. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 54 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 54
        SECTION  3/ 54 NOT IN DIRECTORY                RECORD NUMBER    913
```

16. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 55 (0)$: Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 55
        SECTION  3/ 55 NOT IN DIRECTORY                RECORD NUMBER    935
```

17. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 56 (0)$: Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 56
        SECTION  3/ 56 NOT IN DIRECTORY                RECORD NUMBER    957
```

18. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 57 (0)$: Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 57
        SECTION  3/ 57 NOT IN DIRECTORY                RECORD NUMBER    977
```

19. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 58 (0)$: Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 58
        SECTION  3/ 58 NOT IN DIRECTORY                RECORD NUMBER    997
```

20. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 59 (0)$: Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 59
        SECTION  3/ 59 NOT IN DIRECTORY                RECORD NUMBER   1017
```

21. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 60 (0)$: Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 60
        SECTION  3/ 60 NOT IN DIRECTORY                RECORD NUMBER   1036
```

22. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 61 (0)$: Directory (b)

```
    ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 61
        SECTION  3/ 61 NOT IN DIRECTORY                RECORD NUMBER   1055
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
$MAT=4128, MF= 3, MT= 62 (0)$: Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 62
         SECTION  3/ 62 NOT IN DIRECTORY                    RECORD NUMBER    1073
```

24. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 63 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 63
         SECTION  3/ 63 NOT IN DIRECTORY                    RECORD NUMBER    1091
```

25. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 64 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 64
         SECTION  3/ 64 NOT IN DIRECTORY                    RECORD NUMBER    1109
```

26. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 65 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 65
         SECTION  3/ 65 NOT IN DIRECTORY                    RECORD NUMBER    1126
```

27. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 66 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 66
         SECTION  3/ 66 NOT IN DIRECTORY                    RECORD NUMBER    1142
```

28. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 67 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 67
         SECTION  3/ 67 NOT IN DIRECTORY                    RECORD NUMBER    1158
```

29. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 68 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 68
         SECTION  3/ 68 NOT IN DIRECTORY                    RECORD NUMBER    1173
```

30. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 69 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 69
         SECTION  3/ 69 NOT IN DIRECTORY                    RECORD NUMBER    1188
```

31. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 70 (0): Directory (b)

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```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 70
         SECTION  3/ 70 NOT IN DIRECTORY                    RECORD NUMBER    1203
```

32. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 71 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 71
         SECTION  3/ 71 NOT IN DIRECTORY                    RECORD NUMBER    1217
```

33. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 72 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 72
         SECTION  3/ 72 NOT IN DIRECTORY                    RECORD NUMBER    1231
```

34. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 73 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 73
         SECTION  3/ 73 NOT IN DIRECTORY                    RECORD NUMBER    1244
```

35. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 74 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 74
         SECTION  3/ 74 NOT IN DIRECTORY                    RECORD NUMBER    1257
```

36. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 75 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 75
         SECTION  3/ 75 NOT IN DIRECTORY                    RECORD NUMBER    1270
```

37. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 76 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 76
         SECTION  3/ 76 NOT IN DIRECTORY                    RECORD NUMBER    1282
```

38. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 77 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 77
         SECTION  3/ 77 NOT IN DIRECTORY                    RECORD NUMBER    1294
```

39. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 78 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 78
             SECTION  3/ 78 NOT IN DIRECTORY                    RECORD NUMBER    1306
```

40. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 79 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 79
             SECTION  3/ 79 NOT IN DIRECTORY                    RECORD NUMBER    1317
```

41. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT= 91 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT= 91
             SECTION  3/ 91 NOT IN DIRECTORY                    RECORD NUMBER    1328
```

42. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT=102 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT=102
             SECTION  3/102 NOT IN DIRECTORY                    RECORD NUMBER    1338
```

43. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT=103 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT=103
             SECTION  3/103 NOT IN DIRECTORY                    RECORD NUMBER    1365
```

44. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT=104 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT=104
             SECTION  3/104 NOT IN DIRECTORY                    RECORD NUMBER    1381
```

45. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT=105 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT=105
             SECTION  3/105 NOT IN DIRECTORY                    RECORD NUMBER    1394
```

46. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT=106 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 3, MT=106
             SECTION  3/106 NOT IN DIRECTORY                    RECORD NUMBER    1407
```

47. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 3, MT=107 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 3, MT=107
         SECTION  3/107 NOT IN DIRECTORY                    RECORD NUMBER    1417
```

48. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 2 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT=  2
         SECTION  4/  2 NOT IN DIRECTORY                    RECORD NUMBER    1434
```

49. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 16 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 16
         SECTION  4/ 16 NOT IN DIRECTORY                    RECORD NUMBER    1651
```

50. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 17 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 17
         SECTION  4/ 17 NOT IN DIRECTORY                    RECORD NUMBER    1662
```

51. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 22 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 22
         SECTION  4/ 22 NOT IN DIRECTORY                    RECORD NUMBER    1673
```

52. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 28 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 28
         SECTION  4/ 28 NOT IN DIRECTORY                    RECORD NUMBER    1684
```

53. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 32 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 32
         SECTION  4/ 32 NOT IN DIRECTORY                    RECORD NUMBER    1695
```

54. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 33 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 33
         SECTION  4/ 33 NOT IN DIRECTORY                    RECORD NUMBER    1706
```

55. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 51 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 51
         SECTION  4/ 51 NOT IN DIRECTORY                RECORD NUMBER    1717
```

56. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 52 (0): Directory (b)


```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 52
         SECTION  4/ 52 NOT IN DIRECTORY                RECORD NUMBER    1743
```

57. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 53 (0): Directory (b)


```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 53
         SECTION  4/ 53 NOT IN DIRECTORY                RECORD NUMBER    1769
```

58. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 54 (0): Directory (b)


```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 54
         SECTION  4/ 54 NOT IN DIRECTORY                RECORD NUMBER    1795
```

59. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 55 (0): Directory (b)


```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 55
         SECTION  4/ 55 NOT IN DIRECTORY                RECORD NUMBER    1821
```

60. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 56 (0): Directory (b)


```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 56
         SECTION  4/ 56 NOT IN DIRECTORY                RECORD NUMBER    1846
```

61. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 57 (0): Directory (b)


```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 57
         SECTION  4/ 57 NOT IN DIRECTORY                RECORD NUMBER    1871
```

62. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 58 (0): Directory (b)


```
      ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 58
         SECTION  4/ 58 NOT IN DIRECTORY                RECORD NUMBER    1896
```

63. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 59 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 59
          SECTION  4/ 59 NOT IN DIRECTORY                    RECORD NUMBER    1921
```

64. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 60 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 60
          SECTION  4/ 60 NOT IN DIRECTORY                    RECORD NUMBER    1946
```

65. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 61 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 61
          SECTION  4/ 61 NOT IN DIRECTORY                    RECORD NUMBER    1971
```

66. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 62 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 62
          SECTION  4/ 62 NOT IN DIRECTORY                    RECORD NUMBER    1996
```

67. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 63 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 63
          SECTION  4/ 63 NOT IN DIRECTORY                    RECORD NUMBER    2021
```

68. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 64 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 64
          SECTION  4/ 64 NOT IN DIRECTORY                    RECORD NUMBER    2046
```

69. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 65 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 65
          SECTION  4/ 65 NOT IN DIRECTORY                    RECORD NUMBER    2071
```

70. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 66 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 66
          SECTION  4/ 66 NOT IN DIRECTORY                    RECORD NUMBER    2096
```

71. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 67 (0): Directory (b)

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```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 67
            SECTION  4/ 67 NOT IN DIRECTORY                RECORD NUMBER    2121
```

72. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 68 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 68
            SECTION  4/ 68 NOT IN DIRECTORY                RECORD NUMBER    2146
```

73. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 69 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 69
            SECTION  4/ 69 NOT IN DIRECTORY                RECORD NUMBER    2171
```

74. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 70 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 70
            SECTION  4/ 70 NOT IN DIRECTORY                RECORD NUMBER    2196
```

75. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 71 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 71
            SECTION  4/ 71 NOT IN DIRECTORY                RECORD NUMBER    2221
```

76. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 72 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 72
            SECTION  4/ 72 NOT IN DIRECTORY                RECORD NUMBER    2246
```

77. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 73 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 73
            SECTION  4/ 73 NOT IN DIRECTORY                RECORD NUMBER    2269
```

78. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 74 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 74
            SECTION  4/ 74 NOT IN DIRECTORY                RECORD NUMBER    2292
```

79. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 75 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 75
        SECTION  4/ 75 NOT IN DIRECTORY                RECORD NUMBER    2315
```

80. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 76 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 76
        SECTION  4/ 76 NOT IN DIRECTORY                RECORD NUMBER    2338
```

81. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 77 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 77
        SECTION  4/ 77 NOT IN DIRECTORY                RECORD NUMBER    2361
```

82. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 78 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 78
        SECTION  4/ 78 NOT IN DIRECTORY                RECORD NUMBER    2384
```

83. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 79 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 79
        SECTION  4/ 79 NOT IN DIRECTORY                RECORD NUMBER    2407
```

84. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 4, MT= 91 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 4, MT= 91
        SECTION  4/ 91 NOT IN DIRECTORY                RECORD NUMBER    2430
```

85. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 5, MT= 16 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 5, MT= 16
        SECTION  5/ 16 NOT IN DIRECTORY                RECORD NUMBER    2454
```

86. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 5, MT= 17 (0): Directory (b)

```
     ERROR(S) FOUND IN MAT=4128, MF= 5, MT= 17
        SECTION  5/ 17 NOT IN DIRECTORY                RECORD NUMBER    2513
```

87. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=4128, MF= 5, MT= 22 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 5, MT= 22
            SECTION  5/ 22 NOT IN DIRECTORY                    RECORD NUMBER    2539
```

88. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=4128, MF= 5, MT= 28 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 5, MT= 28
            SECTION  5/ 28 NOT IN DIRECTORY                    RECORD NUMBER    2732
```

89. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=4128, MF= 5, MT= 32 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 5, MT= 32
            SECTION  5/ 32 NOT IN DIRECTORY                    RECORD NUMBER    2835
```

90. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=4128, MF= 5, MT= 33 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 5, MT= 33
            SECTION  5/ 33 NOT IN DIRECTORY                    RECORD NUMBER    2902
```

91. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=4128, MF= 5, MT= 91 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=4128, MF= 5, MT= 91
            SECTION  5/ 91 NOT IN DIRECTORY                    RECORD NUMBER    2949
```

- psyche   Warnings:

   1. Non-threshold reaction with Q value differing from PSYCHE's expectations
      FILE 3 / SECTION 103 / THE CALCULATED Q 1.77737E+06 DISSAGREES WITH THE GIVEN Q 1.67926E+06 (0): Iffy Q

```
        FILE  3
           SECTION 103
                    THE CALCULATED Q  1.77737E+06 DISSAGREES WITH THE GIVEN Q  1.67926E+06
```

- fudge-4.0   Warnings:

   1. Missing a channel with a particular angular momenta combination
      resonances / resolved / MultiLevel_BreitWigner (Error # 0): missingResonanceChannel

```
        WARNING: Missing a channel with angular momenta combination L = 0, J = 4.5 and S = 4.5 for "capture"
```

   2. Potential scattering hasn't converged, you need more L's!
      resonances / resolved (Error # 1): potentialScatteringNotConverged

```
        WARNING: Potential scattering hasn't converged by L=0 at E=28.0 eV, xs[0]/xs[0]=100.0% > 0.1%
```

   3. The URR for this spin group needs higher energy resolution for correct representation of the average cross section
      resonances / unresolved (Error # 0): URRinsufficientEnergyGrid

```
WARNING: More points needed in L=0 J=5.5 unresolved widths between 28. eV and 1.e2 eV
WARNING: More points needed in L=0 J=6.5 unresolved widths between 28. eV and 1.e2 eV
WARNING: More points needed in L=1 J=4.5 unresolved widths between 28. eV and 1.e2 eV
WARNING: More points needed in L=1 J=5.5 unresolved widths between 28. eV and 1.e2 eV
        ... plus 8 more instances of this message
```

4. Cross section does not match sum of linked reaction cross sections
   crossSectionSum label 0: total (Error # 0): CS Sum.

```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.37%
```

- `fudge-4.0` Errors:

1. Calculated and tabulated Q values disagree.
   reaction label 31: n[multiplicity:'2'] + Nb93 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -7204286.176574707 eV vs -7.2342e6 eV!
```

2. Calculated and tabulated Q values disagree.
   reaction label 32: n[multiplicity:'3'] + Nb92 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -16035544.39439392 eV vs -1.60712e7 eV!
```

3. Calculated and tabulated Q values disagree.
   reaction label 33: n + H1 + Zr93 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -6513177.516723633 eV vs -6544040. eV!
```

4. Calculated and tabulated Q values disagree.
   reaction label 34: n + H2 + Zr92 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -11023086.78025818 eV vs -1.09706e7 eV!
```

5. Calculated and tabulated Q values disagree.
   reaction label 35: n + H3 + Zr91 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -13400650.647995 eV vs -1.34252e7 eV!
```

6. Calculated and tabulated Q values disagree.
   reaction label 36: Nb95 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 8511972.186248779 eV vs 8490790. eV!
```

7. Calculated and tabulated Q values disagree.
   reaction label 37: n + He4 + Y90 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -2278700.666015625 eV vs -2308290. eV!
```

8. Calculated and tabulated Q values disagree.
   reaction label 38: H1 + Zr94_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 1707937.196426392 eV vs 1679260. eV!
```

9. Calculated and tabulated Q values disagree.
   reaction label 39: H2 + Zr93_s (Error # 0): Q mismatch

13

```
WARNING: Calculated and tabulated Q-values disagree: -4288611.415786743 eV vs -4233920. eV!
```

10. Calculated and tabulated Q values disagree.
    reaction label 40: H3 + Zr92_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -4765853.839645386 eV vs -4785460. eV!
```

11. Calculated and tabulated Q values disagree.
    reaction label 41: He3 + Y92_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -8387817.045639038 eV vs -8400930. eV!
```

12. Calculated and tabulated Q values disagree.
    reaction label 42: He4 + Y91_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 5650186.666168213 eV vs 5.6366e6 eV!
```

- `njoy2012` Warnings:

1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully
   describe all the products of a nuclear reaction. Some carry-over evaluations from earlier
   ENDF/B versions also have this capability, but many do not. This message is intended
   to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

```
    ---message from conver---cannot do complete particle production for mt= 16
                     only mf4/mf5 provided
```

2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully
   describe all the products of a nuclear reaction. Some carry-over evaluations from earlier
   ENDF/B versions also have this capability, but many do not. This message is intended
   to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

```
    ---message from conver---cannot do complete particle production for mt= 17
                     only mf4/mf5 provided
```

3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully
   describe all the products of a nuclear reaction. Some carry-over evaluations from earlier
   ENDF/B versions also have this capability, but many do not. This message is intended
   to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

```
    ---message from conver---cannot do complete particle production for mt= 22
                     only mf4/mf5 provided
```

4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully
   describe all the products of a nuclear reaction. Some carry-over evaluations from earlier
   ENDF/B versions also have this capability, but many do not. This message is intended
   to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

```
    ---message from conver---cannot do complete particle production for mt= 28
                     only mf4/mf5 provided
```

5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)

```
 ---message from conver---cannot do complete particle production for mt= 32
                        only mf4/mf5 provided
```

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)

```
 ---message from conver---cannot do complete particle production for mt= 33
                        only mf4/mf5 provided
```

7. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (6): GROUPR/conver (0)

```
 ---message from conver---cannot do complete particle production for mt= 91
                        only mf4/mf5 provided
```